STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Commonwealth Edison Company	)	
	)	
Proposal to implement a competitive	)	Docket No. 05-0159
procurement process by establishing	)	
Rider CPP, Rider PPO-MVM,	)	
Rider TS-CPP and revising	)	
Rider PPO-MI.	)	

DIRECT TESTIMONY OF WILLIAM STEINHURST ON BEHALF OF THE CITIZENS UTILITY BOARD AND THE COOK COUNTY STATE'S ATTORNEY'S OFFICE

CUB-CCSAO Exhibit 2.0

June 8, 2005

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Direct Testimony of William Steinhurst
on behalf of the Citizens Utility Board
and the Cook County State's Attorney's Office
ICC Docket No. 05-0159

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is William Steinhurst, and I am Senior Consultant with Synapse Energy Economics (Synapse). My business address is 45 State Street, #394, Montpelier, Vermont 05602.

Q. ON WHOSE BEHALF DID YOU PREPARE THIS PREFILED TESTIMONY?

A: I prepared this testimony on behalf of the Citizens Utility Board and the Cook County State's Attorney's Office.

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS?

A: I have twenty-four years experience in utility regulation and energy policy, including work on renewable portfolio standards and portfolio management practices for default service providers and regulated utilities, green marketing, distributed resource issues, economic impact studies, and rate design. Prior to joining Synapse, I served as Planning Econometrician and Director for Regulated Utility Planning at the Vermont Department of Public Service, the State's Public Advocate and energy policy agency. I have written or co-authored numerous papers and reports on utility regulation, energy policy, statistics, and

modeling and provided consulting services to the Illinois Energy Office, the Massachusetts Executive Office of Energy Resources, the Natural Resources Defense Council, the Regulatory Assistance Project, the Delaware Public Service Commission, the Nova Scotia Utility and Review Board, the Connecticut Office of Consumer Counsel, the Maine Office of the Public Advocate, AARP, the Conservation Law Foundation, the Vermont Auditor of Accounts, the James River Corporation, and the Newfoundland Department of Natural Resources.

I have testified as an expert witness in approximately 30 cases on topics including utility rates and ratemaking policy, prudence reviews, integrated resource planning, demand side management policy and program design, utility financings, regulatory enforcement, green marketing, power purchases, statistical analysis, and decision analysis. I have been a frequent witness in legislative hearings and represented the State of Vermont in numerous collaboratives addressing energy efficiency, resource planning and distributed resources.

I was the lead author or co-author of Vermont's long-term energy plans for 1983, 1988, and 1991, as well as the 1998 report *Fueling Vermont's Future: Comprehensive Energy Plan and Greenhouse Gas Action Plan*, as well as Synapse's study *Portfolio Management: How to Procure Electricity Resources to Provide Reliable, Low-Cost, and Efficient Electricity Services to All Retail Customers*.

I hold a BA in Physics from Wesleyan University, and an MS in Statistics and Ph.D. in Mechanical Engineering from the University of Vermont.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. My testimony will address the proposal by Commonwealth Edison (ComEd, the Company) to use a clearing price auction for procurement of wholesale power to serve Basic Utility Service (BUS) load in its service territory. I will begin by considering the heart of the Company's request, namely that the Illinois Commerce Commission (Commission, ICC) consider only one procedure for the procurement of power for BUS customers after the transition period and, in approving that procedure, relieve the Company of any responsibility for the results of procurement if the Company follows that procedure. I argue that this request, while offering hypothetical benefits to customers, is too narrowly tailored and should be rejected because it cuts off Commission review of the broad range of options that should be considered as Illinois steps out from the transition period.

I then consider witness Fagan's testimony on the state of the wholesale markets and the implications for the Commission's consideration of the Company's particular proposal, the clearing price auction proposal. I also discuss various concerns about the particular type of auction proposed by the Company. I conclude that while the structure of the Company's auction proposal is an improvement over the New Jersey auction on which it is modeled, it has been turned into a version that is less appropriate for BUS customers. I also point out a number of other ways in which the Company's auction proposal fails to provide necessary protections for consumers. I then recommend that the Commission

reject the ComEd proposal and instead order the Company to carry out the necessary procurement under traditional ratemaking.

Following that, I will consider, in the alternative, how the proposed auction process ought to be improved, should the Commission decide to authorize a mechanism similar to that proposed by ComEd.

II. REASONS FOR CONCERN WITH THE COMPANY'S REQUEST

Q. PLEASE GENERALLY DISCUSS THE COMPANY'S REQUEST TO THE COMMISSION.

A. The Company's testimony and exhibits present a very narrow question to the Commission and then examine in minute detail only one possible answer to that question. The Company focuses on the implementation details of an auction while glossing over the fundamental question of whether other options would better serve the public interest.

In focusing only on the issue of *how* the auction should be carried out, the Company's testimony skirts or brushes aside the threshold issues of (1) whether to grant summary approval of the proposed shift to new procurement option--the clearing price auction, (2) when and how the Commission should review the prudence of prior actions by the Company that have led us to the point of apparently needing to rely on market-based procurement, and (3) whether to grant the Company's request to relieve it of any responsibility for power procurement other than implementing the auction as defined.

Q. PLEASE ILLUSTRATE HOW THE COMPANY'S FILING AND REQUEST ARE NARROWLY FRAMED.

A. The Company witnesses consider procurement and competitive issues only within the limited, specific context of an auction for full requirement supply. Little or no room is allowed in the Company's picture of this proceeding for consideration of rate impacts. The Company merely makes sweeping assertions such as "competitive forces are our best tool to make sure that those costs are held as low as reasonably possible". *See*, *e.g.*, Company Exhibit 2.0 at 3. I do not agree that the Commission's options are so limited.

Q. WASN'T THERE A CONSENSUS ON THE COMPANY'S PROPOSED AUCTION APPROACH?

A. No, there was not. The Procurement Working Group did not come to a consensus on a specific procurement method. In light of this lack of consensus, the litigation process should provide the Commission with a broad view of the options and alternatives open to it. ComEd ignores this lack of consensus in its filing. It scarcely mentions other procurement options and fails to provide analysis sufficient to support its conclusion that the full requirements auction model best meets the criteria laid out by the Procurement Working Group.

Witness Clark claims that Professor William Hogan explains "why, of the alternatives considered by the procurement working group, a full requirements, vertical tranche auction would work best for Illinois." Company Exhibit 1.0 at 19. However, witness Hogan makes no such comparison; his testimony discusses

the merits of ComEd's proposed method in a vacuum, with no relation to other procurement strategies. He even concludes that "compared to alternative schemes that might be considered by the Commission, the proposed auction approach is more likely to 'foster development of an effectively competitive electricity market that operates efficiently and is equitable to all consumers'" without considering the full range of options the Commission might have at this point. Company Exhibit 8.0 at 5-7. He only mentions in passing as alternatives the possibility of a return to full regulation and other scenarios that would be considered extreme or irrelevant.

According to witness Hogan, the only choice before the Commission is whether to accept the proposal, or reject it and leave consumers totally vulnerable to a California-style debacle. He assumes that there is no time to do anything except implement an auction, as laid out by ComEd in its proposal:

> In effect, delay is not really an option as to whether to have a new procurement mechanism. The end of the existing contracts dictates that there must be some new procurement mechanism, and the proposed auction method provides a good balance of the objectives of stability and efficiency.

Company Exhibit 8.0 at 40.

His only "alternative" involves what would happen if the Commission does not approve ComEd's proposal and fails to approve an alternative mechanism in time:

> Faced with expiring contracts, exposure to spot prices, and perhaps a continuation of existing rates induced by the absence of an approved procurement mechanism, ComEd could not maintain the status quo and would face certain choices. At one end of the spectrum, ComEd could rely solely on the spot market and repeat

> the risky choice made in California. At the other end, if the Commission approved, ComEd might need to pursue hedging contracts on its own, but outside the transparent, competitive procurement framework it has proposed here. (*Ibid*. at 43)

In my opinion, the Commission's options are not so limited.

Q. IS THERE ANOTHER CONCERN WITH HOW THE COMPANY HAS LIMITED OR NARROWED THE MATTER BEFORE THE COMMISSION?

A. Yes. ComEd focuses on the positive outcomes associated with limiting Commission decision-making after the auction has occurred. For example:

> By approving the ComEd approach in advance (in this proceeding), Illinois would have sent a clear signal to the market about regulatory certainty. The decision would signal that the State would employ a proven competitive procurement mechanism, one that would provide short and medium term contracts that would help reduce investment risks for potential generation investors and potential retail suppliers.

Company Exhibit 8.0 at 42. And:

> Assuring utilities cost recovery when they follow the approved approach is not only just and reasonable to utilities, but it also benefits customers since suppliers will be reluctant to participate in, and reluctant to offer the best prices in, a process that may be second guessed by the Commission after having been completed."

Company Exhibit 1.0 at 13-14.

In a broad sense, ComEd's focus on ensuring that suppliers have the proper incentives to participate in the proposed auction avoids the more important questions of what prices are likely to come out of the auction. ComEd fails to

adequately address consumers' exposure to rates set under extreme circumstances. Additionally, there is little consideration of the Commission's inability to protect consumers from adverse outcomes in an auction. If auction anomalies are present but not detected, or the region experiences severe price spikes at the time of the auction, the Commission would be unable to protect consumers. Customers with no supply alternatives would have no recourse.

Q. DO YOU HAVE ANY CONCERNS ABOUT THE REQUESTS MADE BY THE COMPANY?

A. Yes, I do. The Commission faces two momentous decisions—the choice of how to fashion a method for post-transition power procurement to serve Basic Utility Service customers and the choice of mechanisms for the Company's cost recovery under that new power procurement system.

For decades, procurement has been the responsibility of the retail utility and cost recovery has followed traditional rate making principles, including after the fact review of whether the Company's costs were prudent and resulted in just and reasonable rates. In this proceeding, the Company has presented a single option for the Commission's consideration, an option that relieves the Company of the greatest part of its responsibility for the results of its power procurement decision. The Commission and ComEd's BUS customers deserve better.

Foreseeing the need for these choices, the Commission wisely established an investigation of the alternatives for procurement after the transition period, well in advance of the end of that transition period. After numerous workshops

and meetings, the stakeholders who participated did not reach consensus on a new system for procurement or a new approach to cost recovery. In those workshops, there was sometimes agreement that certain approaches would work better if fashioned in one way or another, but to my knowledge there was not agreement among all the stakeholders that any one approach, even in the best form that could be identified, would meet all the needs of customers and the State of Illinois. The final report of the convener identified a "consensus" list of desired criteria for procurement, but even if all Parties were to grant that this list was complete, it does not address how those criteria should be neither prioritized nor, even, whether any of them were essential. In fact, the final report stated that, "The group agreed, given the wide range of opinions among the 'stakeholders', that it would be next to impossible to recommend either a specific scenario or to rank scenarios in order of preference." Final Report to the Illinois Commerce Commission Presented by the Procurement Working Group, September 23, 2004, at 2.

The Commission should consider broadly all the available options and their potential impacts on all interests, including the smallest customers who are the least able to shop for alternatives to BUS. Currently, there are *no* competitive retail alternatives to BUS for residential customers. The Company's proposal seeks to side step immensely important issues relating to responsibility for power procurement decisions, as well as alternative methods and cost recovery for the power procurement, including the prudence of divestiture.

Q. WHAT DO YOU RECOMMEND THE COMMISSION DO CONCERNING THE COMPANY'S PROPOSAL TO SHIFT BASIC UTILITY SERVICE POWER PROCUREMENT TO A COMPETITIVE AUCTION AND TO ELIMINATE THE COMPANY'S RESPONSIBILITY FOR ITS POWER PROCUREMENT CHOICES AND THE RESULTS OF THOSE CHOICES?

A. I recommend that the Commission:

a. Reject the Company's proposal;

b. Open a new docket to consider the full range of procurement options; and

c. Affirm that, regardless of which procurement method is employed, retail rates remain subject to traditional regulatory standards of justness and reasonableness, which entail a prudence review of the company’s decisions.

III. REASONS FOR CONCERN WITH COMED'S PROPOSED CLEARING PRICE AUCTION

Q. WHAT PARTICULAR TYPE OF PROCUREMENT HAS THE COMPANY RECOMMENDED FOR POWER TO SERVE BUS CUSTOMERS?

A. The Company has proposed a multiple-round, descending clock auction. The Company describes that process as follows:

> In a multiple-round descending clock auction, an initial supply price is proposed for each auction product. If excess supply is offered at such initial price for an auction product, a subsequent

> price at a specified decrementally reduced level is proposed for this auction product in the next round. As long as excess supply is offered for any auction product, another round is conducted. This iterative process continues until the price can no longer be decrementally reduced for any auction product and no bidder can change its bid.

Company Exhibit 7.1 at 4. The Company proposes to conduct two such descending clock auctions, one for hourly customers (those for whom electric service has been declared competitive), and the other for the remaining customers.

For hourly customers this auction process would solicit in the "CPP Hourly Auction" full requirements service based on capacity-only bids with pass through of the energy prices from the PJM hourly energy market.[1] For fixed price BUS customers, the arrangement depends on the size of the customer's load. For each load size group, the load would be divided into tranches of a certain duration and a set percentage of the load (approximating 100 MW of load). For the largest size commercial customers, all tranches would be solicited in the form of one-year contracts in the "CPP Auction - Annual Auction." For smaller commercial customers and residential customers, the "CPP Auction - Blended" segment would procure a combination of annual contracts, contracts on a staggered three year ladder, and contracts on a staggered five year ladder.

The Company also proposes that the Commission pre-approve the process, assure the Company of full cost recovery for the cost of the process *and* for all the power purchased pursuant to the process, and provide for automatic approval of

[1] CPP means Competitive Procurement Process. *See*, Company Exhibit 7.1 at Sheet 245, Definitions. "Full requirements service" means all of the electricity products needed to deliver BUS including energy, capacity, and ancillary services such as various types of reserves. PJM is the Regional Transmission Organization to which ComEd belongs. ComEd reserves the option of purchasing energy and capacity directly from PJM markets if certain events occur. *See*, Company Exhibit 7.1 at Sheet 254.

the results of each auction (unless the Commission acts otherwise within two business days after receiving reports on the auction.[2]

Q. DOES THE COMPANY'S PROPOSED PROCESS FOR RUNNING ITS CLEARING PRICE AUCTION PROVIDE PROPER OVERSIGHT AND REVIEW OF POWER PROCUREMENT FOR BASIC UTILITY SERVICE?

A. No, it does not. The Company's proposed procedures allow for only the briefest and most narrow review of certain very limited and narrow issues.

Q. DO THESE PROCEDURES PROVIDE FOR A REASONABLE ALLOCATION OF RESPONSIBILITY FOR POWER PROCUREMENT FOR BASIC UTILITY SERVICE?

A. No, they do not. Under the Company's proposed procedures and the orders requested by the Company, ComEd would have no responsibility for the costs that result from its proposed process. Such a simple pass through of whatever costs an auction develops will not protect the interests of BUS customers and is not reasonable.

Q. ISN'T IT ROUTINE FOR UTILITIES TO SIMPLY PASS THROUGH

[2] *See*, Company Exhibit 1.0 at line 311 ff. and Company Exhibit 7.1 at Sheets 267-268. Note that the Exhibit states the auction is deemed approved if the Commission does not act within *three* days of the Auction Completion Date, but the Auction Manager and Auction Advisor have one business day to prepare their confidential reports for the Commission, so the Commission only has two days in which to deliberate and act. Company Exhibit 7.1 does provide for the possibility that the Commission could choose to institute an investigation of the auction results. If that occurs, the Company will not execute purchase contracts pursuant to the auction, but will either repeat the auction or purchase from the PJM markets to serve load. Company Exhibit 7.1 at Sheets 268 and 273-274.

COSTS FROM PROCUREMENT IN COMPETITIVE MARKETS?

A. No. Some states that have instituted competitive procurement for default service have approved such a pass through. New Jersey and Maryland are examples. However, utilities routinely purchase goods and services from auction-based markets, requests for proposals (RFPs), or other competitive processes (forward contracts and spot purchases of fuels from commodity exchanges, power from generators and other suppliers, equipment of all sorts, and many other goods and services). Those purchases have been, likewise, routinely subject to ordinary, after the fact rate review in subsequent rate cases, which includes prudence review.

Q. DOES THE PROPOSED AUCTION PROCESS ASSUME AND DEPEND ON A FULLY COMPETITIVE WHOLESALE ELECTRICITY MARKET?

A. Absolutely.

Q. SHOULD THE COMMISSION BE CONFIDENT THAT SUCH A COMPETITIVE WHOLESALE MARKET EXISTS NOW OR WILL EXIST AT THE TIME OF THE FIRST PROPOSED AUCTION?

A. Definitely not. This issue is addressed at length in the prefiled testimony and exhibits of witness Fagan. He identifies multiple, serious concerns about the lack of competitiveness in the Northern Illinois region of the PJM wholesale electricity market now and similar concerns about that market as it is likely to exist at the time of the first proposed auction. His conclusion is clear: the

Northern Illinois region of the PJM wholesale electricity market, on which the entire proposed auction depends, cannot be viewed as fully competitive. His testimony clearly indicates that there is a strong possibility that any competitive procurement will be relying on a flawed wholesale market.

Q. WHY SHOULD THE COMMISSION BE CONCERNED IF COMPETITIVE PROCUREMENT FOR BASIC UTILITY SERVICE WILL BE BASED ON A FLAWED WHOLESALE ELECTRICITY MARKET?

A. The Commission should be concerned about this problem because a flawed wholesale market can result in wholesale market prices that are higher than fair or necessary because some market participants will be able to cause market clearing prices to be higher than the would occur otherwise in a fully competitive market. This would translate into unnecessarily high bids from participants in ComEd's proposed CPP auctions and, hence, into higher than necessary retail rates for BUS customers.

Q. GIVEN WITNESS FAGAN'S CONCERNS ABOUT THE WHOLESALE MARKETS, HOW SHOULD THE COMMISSION VIEW THE COMPANY'S REQUEST?

A. The Commission should be very cautious about committing BUS customers to taking power to be procured under mechanistic procurement that

depends on such a flawed market, no matter how well designed that mechanism may be.

Q. WHAT OTHER CONCERNS SHOULD THE ICC BEAR IN MIND WHEN CONSIDERING THE PETITION?

A. There are at least two such concerns. First, even if those wholesale markets were not potentially flawed, the shift to providing BUS from a clearing price auction is likely to have a severe economic impact on ratepayers and the northern Illinois economy. Second, even if the auction did not pose such problems, the auction design, as proposed, imposes unnecessary economic risks on BUS customers and does not provide better oversight and accountability.

Q. IS A CLEARING PRICE AUCTION LIKELY TO RESULT IN INCREASED COSTS FOR BASIC UTILITY SERVICE CUSTOMERS?

A. Yes, it is. I believe that an initial rate increase of roughly 13% may be reasonably expected from the proposed shift to a clearing price auction. This is an increase in the bundled rate due *only* to the power supply component. The impact on the Illinois economy as a whole from such a rate increase would be substantial. I estimate that rate increases of the magnitude expected from implementing the Company's proposal would cause job losses in excess of six thousand, not counting the effect on the Illinois economy of any potential distribution rate increase. If there were also an increase in the delivery service component of the rate, the job impact would be proportionately larger.

Furthermore, as I explain below, shifting to a clearing price auction for procuring BUS power is highly likely to cost ComEd's BUS customers at least $1 Billion dollars per year more. This is because, in part, *all* power in the wholesale market will be priced at the cost of the most expensive plant used at any given time, and, in part, because bids in the Company's proposed BUS procurement auction would reference those wholesale market prices.

Q. IS THE PROPOSED AUCTION, IN FACT, WELL DESIGNED?

A. Not entirely. While the Company's proposal is based on a model that has worked reasonably well and in some ways seeks to improve on that model, there are a number of flaws in the proposed auction design and process. The proposed auction design and process imposes unnecessary economic risks on BUS customers and does not provide for adequate oversight and accountability. Those flaws threaten the interests of BUS consumers, especially small commercial and residential consumers.

Q. PLEASE SUMMARIZE HOW THE COMPANY'S AUCTION DESIGN, AS PROPOSED, IMPOSES UNNECESSARY ECONOMIC RISKS ON BASIC UTILITY SERVICE CUSTOMERS.

A. There are two ways in which the Company's auction design imposes such unnecessary economic risks on BUS customers: (1) its over-reliance on shorter term contracts; and (2) its failure to include resources that would reduce price volatility and economic risk compared to market-driven power purchase contracts.

First, the proposed auction design actually places more price volatility risk on BUS customers that does the New Jersey auction on which it is modeled, despite the enhanced product variety that is included in the proposal; the amount of supply exposed to market fluctuations each year in the ComEd proposal is around 40%, compared to around 33-1/3% in the New Jersey approach.

Second, the proposed auction imposes unnecessary economic risks on BUS customers because it does not include long term, fixed price renewables or energy efficiency among the resources used. I am aware that the Governor's Sustainable Energy Plan (and counterproposals that have been made) contains concepts that would deliver such benefits to BUS customers. Hence, this issue may be dealt with in another forum. But as the outcome of that proceeding remains in doubt at this time, if the Commission approves an competitive procurement in this proceeding, it should include in that order a requirement that the benefits of long-term fixed price renewables and energy efficiency be provided as part of BUS, should the proceedings on the Governor's Plan fail to deliver them. Even if Governor's Plan proceeding does deliver such benefits, the Commission should require that any competitive BUS procurement include such additional long-term renewable energy and energy efficiency resources as are needed to provide the level of economic risk mitigation that is warranted for BUS customers.

Q. PLEASE DESCRIBE THE NEW JERSEY AUCTION DESIGN AND EXPLAIN HOW THE COMPANY'S PROPOSED CONTRACT DESIGN

LADDERING FOR SMALL CUSTOMERS DIFFERS FROM THE NEW JERSEY MODEL?

A. In the New Jersey approach, a simple, 3-year ladder is used. The result is that, each year, 33.3% of the ladder expires and 33.3% of the ladder is renewed through the auction process. In other words, in any given year, 33.3% of a customer's total electricity generation rate is exposed to market conditions at the time of the auction.

ComEd's proposal, although modeled on NJ, puts customers at more risk—not due to its modified design, but because ComEd's proposed allocations to the various products in its design are flawed. The Company proposes a mix of one, three, and five-year contracts: 15% one-year contracts, 60% three-year contracts, and 25% five-year contracts. The result of this laddering scheme is that, each year, 40% of electric supply is exposed to market price fluctuations. In other words, approximately 40% of a Basic Utility Service customers' generation rate is exposed to a significant price change every year going forward.

The extra 6.66% of annually procured load in the Company's proposal results in 20% more exposure to price fluctuations for BUS customers relative to the New Jersey model.[3] This results in greater risk for BUS customers.

I would like to be clear about this point. It is not the design structure of 1, 3, and 5-year contracts that is objectionable. This represents an improvement over the New Jersey design. Rather, I object to the Company's choice to allocate so much of the portfolio to the 1-year products. Later in this testimony, I present a specific recommendation for how to alter the Company's laddering scheme,

[3] The calculation here is: [(40 - 33.3)/33.3] - 1 = 0.20

should the Commission choose to authorize an auction of the kind proposed by the Company.

Q. PLEASE EXPLAIN HOW THE COMPANY'S AUCTION DESIGN, AS PROPOSED, FAILS TO PROVIDE FOR ADEQUATE OVERSIGHT AND ACCOUNTABILITY.

A. It does so in two ways. First, the Company's proposal does not provide for consumer representation inside the procurement process. While it provides for outside observer (the Auction Advisor), the Auction Advisor is not focused on and accountable to consumer interests. Second, the Company's proposal does not provide for an adequate level of monitoring of market power that would affect the Northern Illinois wholesale electricity markets nor for a mechanism to initiate vigorous state-level action to mitigate such market power or counter abuse of such power.

Q. ARE THERE ANY OTHER CONCERNS WITH THE PROPOSED AUCTION PROCESS THAT THE COMMISSION SHOULD TAKE INTO ACCOUNT?

A. Yes, one additional broad concern with the proposed process seriously threatens the interests of consumers. As, I explained above, the Company's proposal would price power for BUS customers on the basis of a clearing price auction, rather than on the basis of the cost of power.

Q. HOW SERIOUS IS THE CONCERN ABOUT SHIFTING TO A MARKET-CLEARING PRICE FOR BUS POWER?

A. The shift to pricing all power at market clearing prices stands to cost northern Illinois ratepayers as much as $1 Billion per year relative to cost-based procurement.[4]

Q. PLEASE EXPLAIN THE BASIS FOR THE ABOVE ESTIMATE OF A $1 BILLION PER YEAR COST TO NORTHERN ILLINOIS RATEPAYERS.

A. This estimate is based on an analysis of the likely production costs for Exelon's Illinois nuclear fleet and the likely market prices in the northern Illinois PJM area. Those power plants originally supplied ComEd customers with power at prices based on their costs. During the transition period that will end in 2006, ComEd customers have been served by power procured, at least in part, from the Exelon affiliate that took over those plants from ComEd. After the transition period, that affiliate will be free to sell the output of those plants at whatever is the market price in PJM. Our study shows that that event will boost Exelon gross margins by about $1 Billion per year. Exelon might choose to bid that power into a competitive procurement for BUS load, such as an auction like that proposed by the Company, if there is such a process or to offer its output to other entities that are bidding in such a process. Either way, Exelon can expect revenues similar to the PJM market clearing prices for energy and capacity. If BUS customers are

[4] Actually, our study compared the revenues that Exelon could expect from market-based pricing of its Illinois nuclear units to the revenues Exelon would receive if the output of those units were priced at the system lambda plus 10%. The system lambda is the year-round average of the marginal generating cost of all units in the region (including peakers) and is, itself, certainly higher the variable operating costs of baseload units.

served by power procured from suppliers at market-based prices, whether from Exelon directly or indirectly through a market-based procurement process, BUS customers will ultimately be the source of that increased margin. A report explaining the methodology, assumptions, and results of this analysis is attached as Exhibit 2.2.

Q. WOULD THAT ESTIMATED $1 BILLION PER YEAR BE THE ONLY EXCESSIVE COST THAT WOULD BURDEN BUS CUSTOMERS IN COMED'S SERVICE TERRITORY?

A. I do not believe so. It is not unreasonable to think (1) that wholesale market flaws in northern Illinois, and (2) that the presence of relatively inexpensive coal-fired power in the region could add substantially to that impact.

(1) Exercise of market power in the region could result in auction clearing prices even higher than those used in the analysis attached as Exhibit 2.2.

(2) The same logical construct explained in Exhibit 2.2 also applies to the less-expensive, Illinois-based coal-fired generation once owned by ComEd. While I have not performed a similar quantitative analysis for those resources as I did for Exelon's Illinois-region nuclear facilities, I would expect that the results of such an analysis would show considerable potential for profit beyond what a cost-based regime would have provided for those same coal-fired units. This impact is primarily an artifact of pricing based on marginal cost when the marginal fuel in the greater PJM region is more often natural gas, relative to the ComEd region where the marginal fuel is predominately coal.

Q. PLEASE SUMMARIZE YOUR VIEW OF THE PROPOSED AUCTION DESIGN AND PROCESS?

A. It is a huge leap of faith that is not justified, given the flawed wholesale market underpinning the proposed auction and the additional design flaws in the Company's proposed procurement.

IV. RECOMMENDATIONS FOR REJECTION OF PROPOSED AUCTION

Q. GIVEN THESE CONCERNS WHAT DO YOU RECOMMEND THE ICC DO?

A. I recommend that the Commission reject the ComEd proposal and refuse to place BUS customers on competitive auction procurement.

Q. PLEASE EXPLAIN FURTHER YOUR RECOMMENDATIONS CONCERNING REJECTION OF THE COMPANY'S AUCTION PROPOSAL.

A. Given the level of concern about market power and other issues in the Northern Illinois region of the PJM wholesale market, the potential for a substantial increase in power costs by establishing power costs for retail customers solely on the basis of a clearing price auction, and the various economic risks that the Company's proposal would impose on BUS customers, especially those that are the smallest and least able to access competitive alternatives, I recommend that the Commission adopt an alternative approach.

Q. IF THE ICC REJECTS THE PROPOSED AUCTION, WHAT ARE ITS ALTERNATIVES?

A. While there are many possibilities, I would bring the following to the Commission's attention:

1. The Commission could require a different form of competitive procurement, such as a Request for Proposals (RFP). (This has some of the benefits of a "pay as you bid" auction, but is more flexible.) Significant controls on affiliate transactions would be required under this option.

2. The Commission could reject competitive procurement, and require ComEd to procure least cost power meeting such standards as the Commission may impose. Such procurement would be subject to traditional rate making standards.

I recommend the Commission adopt the second alternative above, namely to reject the auction proposal and order the Company to procure least cost power supply for BUS customers subject to traditional ratemaking standards.

V. RECOMMENDATIONS FOR AUCTION ENHANCEMENTS IF AN AUCTION IS ORDERED

Q. DO YOU HAVE RECOMMENDATIONS FOR THE COMMISSION ON HOW TO MITIGATE THE SHORTCOMINGS OF THE COMPANY'S PROPOSED AUCTION DESIGN, SHOULD THE COMMISSION DECIDE TO AUTHORIZE AN AUCTION OF THE TYPE PROPOSED BY THE

COMPANY?

A. Yes. Although I recommend that the Commission reject the ComEd proposal and refuse to place BUS customers on competitive auction procurement, in the alternative, if the Commission chooses to order an auction procurement, I recommend that it require the following:

a. An option for the Commission to reject the entire procurement if the result is unsatisfactory (not just if a procedural flaw is discovered)

b. An improved tranche allocation structure for competitively procured power that reduces the amount of supply procured each year

c. Changes to the Company's proposed Supply Administration Charge[5]

d. Improved oversight and accountability for the auction process in the form of a Consumer Observer[6] and a State entity assigned responsibility for market monitoring and taking action in the event of exercise of wholesale market power

e. Inclusion of an allocation of power to long term, fixed price renewable sources if its consideration of the Governor's Sustainable Energy Plan does not result in comparable risk mitigation benefits to BUS customers

f. Inclusion of an allocation of need to energy efficiency procurement if its consideration of the Governor's Sustainable Energy Plan does not result in comparable cost and risk mitigation benefits to BUS customers

Q. IF THE COMMISSION ACCEPTS YOUR RECOMMENDATION TO

[5] This is a charge the Company proposes to collect from BUS customers to recover the costs of administering the CPP.

[6] I explain the meaning of this term and the role of the Consumer Observer in my testimony below.

RETAIN THE OPTION OF REJECTING THE ENTIRE PROCUREMENT IF THE RESULT IS UNSATISFACTORY, AND IF THE ICC DOES SO REJECT IT, WHAT ALTERNATIVES WOULD IT HAVE AT ITS DISPOSAL TO ENSURE CONTINUATION OF BASIC UTILITY SERVICE?

A. The primary alternative would be (1) to order ComEd to temporarily carry out least cost procurement using short term to medium term instruments (spot purchases, bilateral contracts and forward contracts of one month up to one year, appropriate hedges, and the like) and (2) consider whether to reschedule the auction for another attempt or use a different competitive process.

Q. PLEASE EXPLAIN YOUR OTHER RECOMMENDATIONS.

A. The Company's proposed auction scheme should be modified in several ways. First, the tranche structure should be improved, such that the amount of supply procured each year is reduced to a reasonable level. Second, a portion of the load should be procured through long-term, preferably life-of-unit renewable contracts. Third, a portion of the load should be procured through energy efficiency mechanisms.[7] Fourth, the Supply Administration Charge should be converted from a fixed payment per customer per month to a volumetric charge. Finally, the procurement process should include additional oversight and

[7] I am aware that extensive proposals addressing both renewable energy and energy efficiency are under consideration in a parallel Commission workshop process to consider the Governor's Sustainable Energy Plan. As that proceeding may result in procedures that could address the renewable energy and energy efficiency needs of BUS, I will not attempt to fully develop BUS-only options at this time. Instead, later in this testimony, I will address the basic reasons that BUS should incorporate renewable energy and energy efficiency and briefly explain how the Commission's decision in this proceeding should interact with that in the proceeding on the Governor's Plan.

accountability in the form of a consumer advocate representative. Below, I describe each recommendation in more detail.

VI. CONTRACT LADDERING SCHEME

Q. WHAT ARE THE REASONS FOR YOUR CONCERNS REGARDING THE PROPOSED CONTRACT LADDERING SCHEME?

A. As explained above, the Company proposes a mix of one, three, and five-year contracts. Here, I will review the Company's proposal for how to define that mix and explain why and how it should be altered, should the Commission choose to authorize a auction of the type the Company proposes.

In general, I support a mixed product offering. However, I am concerned that the Company has not presented reasonable ratios of one, three, and five-year contract; the Company proposes the following mix: 15% one-year contracts, 60% three-year contracts, and 25% five-year contracts. The result of this laddering scheme is that, each year, 40% of electric supply is exposed to market price fluctuations. In other words, approximately 40% of a basic utility service customers' generation rate is exposed to a significant price change every year going forward. This is both unreasonable and unnecessary, particularly given that the proposed auction is modeled on the New Jersey auction scheme, wherein 33% of the contracts expire each year.

Q. IS THE DIFFERENCE BETWEEN A 40% PROPOSED ILLINOIS EXPOSURE AND 33-1/3% EXPOSURE IN NEW JERSEY SIGNIFICANT?

A. Not only is it significant, but it is also unnecessary. Price stability is a crucial need of residential and small commercial customers. As I explained above, increasing the fraction of the BUS resources that must be re-bid each year from 33.3% to 40% would cause a roughly 20% greater price volatility.

Q. WHAT DOES THE COMPANY SAY ABOUT THIS?

A. The Company infers that having a 40% exposure is necessary in order to accomplish the goals of having a mixed 1, 3, and 5-year product offering. In response to Citizens Utility Board's discovery question number 1.11(a), the Company states that "…the difference between 40% and 33% is not substantial, and that the reason for the 33% value in New Jersey is because they use a 3-year product, staggered one-third each year – whereas the 40% suggested by ComEd actually incorporates a blend of 1, 3, and 5-year product terms. This mix was designed to address volatility and price stability issues through the use of 3 and 5-year products, while allowing for an opportunity to capture potential short-term decreases in supply costs that might occur through the 1-year product." However, for the Company to infer that their proposal is necessary in order to incorporate 1, 3, and 5-year contracts is misleading. There is a way to accomplish both such goals AND reduce customers' exposure to wholesale market price risks.

Q. DO YOU HAVE A RECOMMENDED SOLUTION THAT WILL ALLOW COM ED TO TAKE ADVANTAGE OF THE BENEFITS OF A MIX OF

CONTRACT LENGTHS WITHOUT EXPOSING CUSTOMERS TO SUCH HIGH LEVELS OF PRICE VOLATILITY?

A. Yes. If the Commission chooses to order an auction procurement approach, I recommend the following mix of supply contracts (for all load not served by long-term renewable specific contracts): 9% one-year contracts, 51% three-year contracts, and 40% five-year contracts. The result of such a scheme is that 34% of the portfolio is exposed to year-to-year price variations. The purpose of this change would be to reduce the price volatility borne by BUS Blended rate customers as explained above.

Exhibit 2.3 accompanying this testimony illustrates one example of a tranche and product allocation that achieves this outcome. Its overall annual purchase fraction falls more in-line with the New Jersey model. In addition, it still offers benefits associated with a mix of 1, 3 and 5-year contracts; it allows greater year-to-year price stability; and it still allows for an opportunity to partially capture any short-term decreases in supply costs.

Q. YOU HAVE FOCUSED ON THE COMPANY'S OVER RELIANCE ON ONE-YEAR CONTRACTS IN ITS PROPOSED LADDERING SCHEME. WOULD PURCHASES EVEN SHORTER THAN ONE YEAR IN DURATION BE OF ANY VALUE IN DESIGNING A POWER PORTFOLIO FOR BASIC UTILITY SERVICE?

A. Yes. To enhance flexibility in a power portfolio, it is common to make some use of spot purchases and purchases for periods of less than one year, such as one-month contracts.

Q. DO YOU RECOMMEND THAT THE COMMISSION REQUIRE THE COMPANY TO INCORPORATE SUCH SHORTER TERM PRODUCTS IN ITS AUCTION PROPOSAL?

A. Not at this time. If the Commission authorizes the Company to proceed with an auction procurement similar to the one proposed here. While such shorter-term products would, in principle, increase the diversity of supply and flexibility in managing a resource portfolio, the Company's proposed contracting structure is based on contracts for a set percentage of each hour's load. It would be difficult to implement strategic use of short-term products by the Company without detailed redesign of the entire proposal. Also, if such flexibility were to going to be incorporated into the proposal but not increase the volatility of the portfolio as a whole, additional adjustments would be needed in the structure of the 1, 3, and 5-year ladder. Therefore, if the Commission chooses to authorize an BUS procurement auction of the general type proposed by the Company, I recommend that the Commission require the Company to report in the first process improvement review on the options for incorporating short term products into the procurement contract ladder in order to improve flexibility and diversity while maintaining price volatility mitigation.

Q. DOES YOUR PROPOSED AUCTION SCHEME OFFER OTHER BENEFITS?

A. Yes. In my proposal, there is greater use of 5-year contracts. Not only does this inherently decrease customers' annual exposure to the wholesale spot market, but it also benefits both suppliers and customers; as opposed to a series of shorter-term contracts, longer-term contracts assure suppliers that somebody is going to purchase their load at an acceptable price. This is advantageous, as it gives the supplier information that helps with planning - operationally, financially, and strategically. This reduces suppliers' risk and therefore costs. Should suppliers share their risk and price reduction with buyers, both parties benefit.[8]

Q. SHOULD THE ICC BE CONCERNED BY THE FACT THAT 5-YEAR CONTRACTS ARE A NEW CONCEPT FOR DEFAULT SERVICE COMPETITIVE PROCUREMENT?

A. No, and the Company agrees. As it states in response to CUB discovery question number 1.11(b), the Company states, "While there currently is no standard market for 5-year products, PJM's work on the RPM construct to establish a capacity market for a 4-year forward period will provide a basis for suppliers to develop suitable hedge products. Through the offering of a 5-year product, year after year,

[8] Amy Roschelle and William Steinhurst, "Long-term Power Contracts: The Art of the Deal," Public Utilities Fortnightly, August 2004.

the market should naturally extend its depth to this level and become more robust over time."[9]

Some parties, especially potential bidders who do not own generation, may argue that they cannot realistically bid in tranches for 5-year products because they cannot obtain standard electricity forward contracts to hedge their price risk. While that is something of a chicken and egg problem, standard 5-year products exist in many commodity markets including, most importantly, natural gas markets. Indeed, natural gas forward contracts can be less expensive five years ahead than one year ahead. In addition, generation owners who are considering bidding into BUS procurement may compete for the opportunity to lock in five year sale as it gives them greater certainty in their revenue streams.

Of course, when any new auction policies are enacted, it is natural to expect generators to reflect their uncertainty in the bids. The perception of risk may add a premium. After one or more market cycles, however, I would expect generators to become comfortable with the auction process. As their perceived risk drops, so should their bids. In any event, I would expect any premium for the longer-term contracts to be offset by the financial benefits (price stability) that consumers receive from the longer-term contracts.

Q. BUT IS IT POSSIBLE THAT THERE WILL BE INSUFFICIENT OFFERS OF LONG-TERM PRODUCTS IN THE AUCTION TO MEET THE FRACTION OF THE LOAD ALLOCATED TO THEM?

[9] The "RPM" proposal referred to here is a proposal currently under consideration by PJM for establishing a new mechanism for charging load-serving entities (utilities and competitive retail suppliers) for the capacity costs of serving their loads.

A. One and three year products are routinely offered in default service procurements in many other states, so I do not believe there will be any shortage of offers for those products. Although I do not expect it likely, there is the possibility that five-year offers may not be made in sufficient quantity to supply all the load intended for that product. One reason that might occur is that longer term electricity forwards of that length may not be readily available or thinly traded, making it more difficult for bidders who do not own generation to participate in that part of the auction. On the other hand, generation owners should be attracted to the longer-term products.

Q. IF THE COMMISSION REMAINS CONCERNED ABOUT THAT POSSIBILITY, WHAT ACTION WOULD YOU RECOMMEND?

A. If the Commission is concerned that five-year offers may be insufficient to serve all of the load that would be allocated to that product, the Commission should require that the residential and smaller commercial customers receive the benefit of the five-year products available first, followed by successively larger commercial Customer Groups, at least in subsequent auctions once such a problem arises. The reason for this recommendation is that shopping alternatives and the expertise and resources to obtain price stability from ARES are scarce or absent for those smaller customers.

Q. HOW OFTEN SHOULD THE AUCTION PRODUCTS AND PERCENTAGES BE REVISITED?

A. As the Company explains in response to CUB discovery question 1.10(b): "During the Process Improvement Workshops after each auction, the stakeholders have the option to review the [product] mix and determine whether there is sufficient reason to alter it … Frequent revisions to the mix could create confusion among suppliers and customers."

I do not disagree with this. However, over time, as market conditions and financial hedging instruments mature and change, it might make sense to incorporate not only different percentages of 1, 3 and 5-year contracts, but also to incorporate entirely new products into the auction mix. Given this, I recommend that the ICC order a formal review and possible re-balancing of the product mix every three years. I say this having in mind that the ICC and utility should make such changes that are in the public interest with care and deliberation, and with participation by intervenors, so as not to disrupt unduly wholesale markets or auction participants' perceptions. But I see no need to arbitrarily rule out changes should markets or other circumstances require them in the public interest.

VII. SUPPLY ADMINISTRATION CHARGE

Q. WHAT IS THE NEXT ASPECT OF THE COMPANY'S PROPOSAL THAT SHOULD BE CORRECTED?

A. The Company has proposed that it recover the costs of conducting its proposed competitive procurement for BUS via surcharge to the power rate to be charged to BUS customers. This charge is called the Supply Administration Charge. The rate design proposed by the Company for this charge is

inappropriate and should be changed if the Commission chooses to authorize an auction of the sort proposed by the Company.

Q. HOW SHOULD THE COMPANY'S PROPOSED SUPPLY ADMINISTRATION CHARGE BE CHANGED?

A. The Company has proposed that it recover its expenses for administering BUS via a fixed monthly charge similar to a customer charge.[10] I recommend, instead, that the Commission permit the Company to recover those costs through a volumetric (per kWh) charge. For customers with a demand charge component in their tariff, it may be appropriate to allocate some of the administrative costs to a volumetric per kWh charge and some to a volumetric per kW charge.

Q. PLEASE EXPLAIN THE REASONS FOR YOUR RECOMMENDATION.

A. The Company's costs for administering the procurement process does not depend on the number of customers. If an additional residential or small commercial customer chooses to take BUS, the cost of running the auction, handling settlements with PJM and wholesale bidders, and so on will not alter. Therefore, cost causation principles do not dictate a flat monthly charge. A volumetric charge is more in keeping with the goal of promoting energy efficiency.

[10] See, for example, Company Exhibit 7.5, Rate BES-NRB, at 6. ("The Supply Administration Charge is applicable to the customer in each monthly billing period and is equal to $XXX.XX." [sic]])

VIII. NEED FOR A CONSUMER OBSERVER

Q. IS THERE ANOTHER ASPECT OF THE COMPANY'S PROPOSAL THAT SHOULD BE CORRECTED?

A. Yes. The Company has proposed that the auction it recommends be monitored by a single entity, called the Auction Advisor. The Auction Advisor would be a representative of the Commission's Staff. I believe that a specific consumer perspective also needs to be represented in the oversight of the auction, should the Commission choose to authorize one.

Q. DO YOU HAVE A RECOMMENDATION REGARDING HOW A SPECIFIC CONSUMER PERSPECTIVE SHOULD BE INCORPORATED INTO THE OVERSIGHT OF SUCH AN AUCTION?

A. Yes. I recommend that the Commission provide a role for Consumer Observer. This role would be similar to that of the Auction Advisor proposed by ComEd who would be charged with observing and reporting on how well the process conforms to the approved model. *See*, *e.g.*, Company Exhibit 7.1 at Sheet No. 254. The role I would recommend for the Consumer Observer would be similar, but with a different focus. The Consumer Observer should have the same access to information and processes as the Staff Advisor, but would be charged with monitoring the process and outcome from a consumer perspective and presenting that perspective to the Commission when the Commission is making its deliberation as to whether to accept or reject the results of the auction. The Consumer Observer would also be positioned to play a fully knowledgeable and active role in process improvement reviews each year and the formal review I

recommend every three years. The presence and full participation of a Consumer Observer is a fundamental issue of fairness and of the perception of fairness.

Q. IS THERE A PRECEDENT FOR A CONSUMER OBSERVER?

A. Yes. The Maryland procurement process (an RFP approach) provides for such a role.

Q. WHY IS IT IMPORTANT THAT CONSUMERS BE ALLOWED AN OBSERVER TO OVERSEE ANY ICC ORDERED AUCTION PROCESS FOR BASIC UTILITY SERVICE PROCUREMENT?

A. Many auction advocates cite transparency as one of the primary benefits of the auction process. For wholesale bidders (both generation suppliers and purely financial bidders) and basic utility service providers, this holds true. Throughout the auction, these parties know exactly what is taking place – they are fully aware of different bids and bid strategies; they see which generators win supply contracts and which ones fail to win. All of this is beneficial to these parties. It helps them not only understand what goes on during the auction, but more important, that the process worked as intended. In other words, for these parties, the auction process in transparent.

The same cannot be said for consumers. From their perspective, the auction process is a big black box; all they know is that a generation rate was determined. In other words, consumers bear the full consequences of the process without having adequate insight into the actual process.

In the Company's filing, it is clear that this situation is not projected to change. However, there is absolutely no valid reason why a consumer observer could not nor should not be allowed to observe and review the auction process in the same way the auction advisor currently observes and reviews the auction process.

I therefore recommend that a consumer observer be allowed to observe any auction process ordered by the Commission.

Q. PLEASE EXPLAIN WHAT THE CONSUMER OBSERVER'S ROLE SHOULD BE?

A. The Consumer Observer's role is multi-faceted. It includes the following activities:

(1) Observing all activities leading up to the auction itself, including software development and testing, bidder education and communications, bidder qualification, and so on;

(2) Observing preparatory steps such as establishment of the opening prices and number of tranches;

(3) Real-time monitoring of all aspects of the auction;

(4) Reviewing and analyzing auction data and documents, as needed;

(5) Briefing of the Commission Staff on all of the above;

(6) Forming its own assessment of the auction;

(7) Making recommendations to the Commission regarding the acceptance or rejection of the auction results;

(8) Assisting the Commission in its decision on acceptance or rejection of the auction;

(9) Providing an independent report covering the same issues and factors as do the Auction Manager's and Auction Advisor's reports to the Commission;[11]

(10) Making recommendations to the commission about future auctions.

Q. WOULDN'T SOME OF THIS DATA BE AVAILABLE TO THE PUBLIC IN THE FORM OF REPORTS PROVIDED BY THE AUCTION MANAGER?

A. In New Jersey and I believe as proposed in Illinois, reports provided to the public by the auction manager are in a redacted form. In my view, such reports are of insignificant value to an entity responsible for protecting consumers' interests. All important data is redacted. The position of some parties that only the Auction Manager and the Commission Staff's Auction Advisor may have access to confidential information about bids and the auction process is a judgment on the part of those parties and not necessarily correct. In fact, in Maryland, the Office of the Public Advocate has played a role quite similar to the one I propose for the Consumer Observer. This was actually part of a settlement signed by the parties who intended to (and did) bid in the Maryland procurement.

Q. WHAT ABOUT CONFIDENTIALITY OF DATA?

[11] *See*, Company Exhibit 7.1 at Sheet 257.

A. Confidentiality is an issue relevant to protecting bidders from competitive harm between and among other bidders or potential bidders. However, this becomes a non-issue given that the consumer observer would sign a confidentiality agreement. My understanding is that, in New Jersey, the auction advisor is provided with all information in the possession of the auction manager and has access to observe all stages of the procurement process prior to and during the auction. The consumer observer should be subject to the same confidentiality requirements as the auction advisor - no more and no less.

Q. WHAT KIND OF RECOMMENDATIONS COULD THE AUCTION ADVISOR AND CONSUMER OBSERVER MAKE?

I believe that it is appropriate and necessary for the Auction Advisor, as well as the Consumer Observer, to have the ability to recommend rejection of the auction results on the basis that the auction resulted in unreasonable price bids. I understand that this is controversial, and that it has been argued that this provision would chill competition. This is not an acceptable reason for prohibiting such authority. Innumerable competitive solicitations occur in private, commercial and government procurement processes where the purchaser reserves the right to reject the results for any reason or no reason without chilling competition. I see no reason why this procurement would be any different. Furthermore, I believe that potential bidders, especially generation owners, have a strong incentive to capture a share of the BUS load, which is a very large market, and will aggressively bid for that market.

Q. HOW WOULD THE CONSUMER OBSERVER BE CHOSEN?

A. The consumer observer should be selected by, and *only* by, the specific consumer advocacy entities that are identified as appropriate for that role in the design of the auction procurement. In particular, no other stakeholders should have any authority over that selection or over the actions of the consumer observer. The only exception to that provision should be the ability of the Company to request the ICC to enforce whatever agreements or orders cover the activities of the consumer observer, including but not limited to confidentiality agreements.

Q. WHO WOULD THE CONSUMER OBSERVER REPRESENT?

A. The entities that appoint the consumer observer and to whom the consumer observer reports and is accountable should be recognized as official consumer advocates. Possible choices include the Citizens Utility Board (CUB), the Illinois Attorney-General's Office, the Cook County State's Attorney's Office, and the City of Chicago. There may be similar entities in other regions of the state. Ad hoc membership organizations, such as representatives of limited subsets of the consumers, should not be included. Whatever entities are included should be subject to the jurisdiction of the Commission, at least for the purpose of enforcement of the agreements or orders governing the activities of the Consumer Observer.

IX. INDEPENDENT STATE MARKET MONITORING ENTITY

Q. DO YOU HAVE ANY ADDITIONAL RECOMMENDATIONS FOR IMPROVING THE CHANCE THAT AN AUCTION PROCUREMENT WOULD BE APPROPRIATE?

A. Yes. I recommend that Illinois create a state-level entity to monitor the presence or abuse of market power in both wholesale and retail sectors of the electricity industry in Illinois. I will refer to this entity as the Illinois Market Monitoring Unit (MMU). It is my understanding the Illinois Attorney-General's Office is already authorized to perform this function (as well as monitoring of retail electricity markets) and has a statutory right to access the information needed to do so, at least to the extent that the Commission has or obtains such information.

Q. WHY IS SUCH AN ENTITY NEEDED?

A. First of all, as witness Fagan explains in detail, the existence of a variety of wholesale electricity market flaws in PJM's northern Illinois region is evident. Those flaws and the facts of generation ownership concentration in the PJM market mean that we should be concerned about the existence and potential abuse of market power.

When the Federal Energy Regulatory Commission (FERC) allowed wholesale market rate authority to go into effect, it required the various Independent System Operators (ISOs) to create internal market monitoring entities within the ISO's organization. FERC required that those entities have

responsibility for monitoring for abuse of market power and for establishing procedures for the mitigation of that power.

FERC also endorsed the concept of an independent market monitor, in addition to the internal MMU each ISO is required to employ. Such independent entities are in place in New England and New York. Such an independent entity would be able to provide an additional perspective on market operations, market rules, and market abuses as well as address the issue of possible shortcomings within the ISO's internal market monitoring unit. Also, an independent market monitor can compare the RTO's practices with those of other RTOs and recommend improvements.

From a consumer perspective, it is important to have a truly independent entity to look at the effectiveness of the overall market structures, as well as the effectiveness of market monitoring and mitigation procedures. RTO market monitors often support market and rule change proposals made by their own RTO, which may weaken the RTO's market monitoring and mitigation ability. An Illinois MMU's charge should include providing an independent voice on changes or needed improvements to RTO markets and rules. A state-level MMU could effectively do this since it is not absorbed in daily monitoring of market activity and would have a broad public interest view. This role is especially important as the RTO MMU's role and authority is and has always been under constant attack by various market participants.

Consumers will see little or no benefit from retail competition or competitive procurement of Basic Utility Service (BUS) if wholesale power

markets are not fully competitive. This is more than a theoretical issue. It is very likely that an area as densely populated as Northern Illinois will be subject to market concentration at a variety of different load levels, with the attendant potential for abuse and excessive prices.

Q. WOULD THE ABILITY OF POTENTIAL BASIC UTILITY SERVICE BIDDERS TO HEDGE THEIR BIDS BY RELYING ON PHYSICALLY REMOTE PHYSICAL OR FINANCIAL MARKETS ALLEVIATE CONCERNS ABOUT LOCAL OR STATE-LEVEL MARKET POWER?

A. I do not believe so. For example, potential bidders can mitigate their exposure to *local* or *state-level* market power by purchasing hedges in physically remote markets, but no such possibility exists for bidding into load pockets, even if the cost were reasonable. Furthermore, it is not reasonable to require consumers to pay the cost of hedges to combat market power that shouldn't exist in the first place.

Q. WHAT CONCLUSION DO YOU DRAW FROM THE ABOVE POINTS?

A. For all these reasons, Illinois would do well to explore all available avenues for enhancing the monitoring and mitigation of market power in its wholesale electricity markets.

Q. WHY IS ILLINOIS AN ESPECIALLY APPROPRIATE JURISDICTION FOR IMPLEMENTING A STATE MMU?

A. Illinois is one of the few states that developed its own institutional oversight of the nuclear power industry. The success of that nuclear oversight covering a number of years and numerous historical examples of states' economic and environmental self-advocacy in fields supposedly protected at the federal level suggest that a similarly useful role could be crafted to protect consumers for wholesale electricity market power abuse. In addition, the Illinois Attorney-General's Office has relevant statutory authority for access to the necessary information.

Q. SO, WHAT DO YOU PROPOSE?

A. I propose that the Commission require as a condition precedent to any competitive procurement process for Illinois the establishment a state-level entity charged with representing electricity consumers' interests by monitoring the development and performance of wholesale electricity markets and associated markets for capacity, transmission and other goods and services. The purpose would be to detect actual and potential market power and abuse and take action to prevent or eliminate such market power or abuse wherever it occurs.

Q. WHAT TOOLS OR AVENUES WOULD SUCH A STATE MMU HAVE FOR SEEKING REDRESS IN THE EVENT OF ACTUAL OR POTENTIAL ABUSE?

A. That would depend on the specific issue. If flaws are detected in wholesale market structures or regulation, solutions would likely be sought

through proposals to the RTO or petitions to FERC seeking alterations to the market structure in question or with promoting remedial legislation. Remedies for actual abuses could be sought through by convincing FERC, RTOs, or the US Department of Justice to act to enforce or improve competitive standards, through litigation in the courts, or through promoting remedial legislation. There might also be opportunities to address problems impacting BUS customers through changes and enforcement under Illinois' regulatory authority.

This idea could, potentially, extend far beyond RTO-administered markets if Illinois wished. Scrutiny of the behavior of electricity and natural gas exchanges and traders, such as we see carried out by the New York Attorney General's office and, perhaps, scrutiny of retail electric marketing abuses (to the extent there is a retail electric market) could also be included.

Q. WHAT WOULD IT COST TO IMPLEMENT AN ILLINOIS MMU?

A. The primary cost of this action would be personnel costs for monitoring and potential litigation costs for taking action in case of detected market power abuse. There might also be costs for personnel or technical assistance in actively participating in PJM or MISO[12] committee activities or FERC rulemakings, as well as associated research costs. Experience suggests that a credible job of routine monitoring and RTO/FERC involvement could be done for something on the order of $1 million per year. Given the large scale of the wholesale market and the magnitude of effects that can be seen even with infrequent exercise of

[12] MISO is the Midwest Independent Transmission System Operator, the RTO responsible for a number of Midwest states and Canadian provinces or portions thereof, including the non-PJM portion of Illinois.

market power, the savings to consumers from addressing almost any detected abuse would far exceed the cost of establishing an Illinois MMU.

I would expect there to be numerous side benefits for consumers, as well. One very important benefit is that by merely existing, this entity may deter bad behavior saving customers lots of money.

Q. YOU HAVE MENTIONED ACCESS TO INFORMATION SEVERAL TIMES. WOULD AN ILLINOIS MMU BE ABLE TO ACCESS THE INFORMATION NEEDED TO DO ITS JOB?

A. Confidentiality of wholesale market data, such as bids and generation costs, is a very contentious issue. Generators fight hard to keep this information out of the sunshine. RTO and FERC market monitors routinely collect and summarize such data, but are barred by various RTO rules from disclosing it. The Independent Market Monitors in New York and New England have access to all market information. State public utility regulators also have the right to request and receive this data under information disclosure procedures adopted in New England and PJM. In addition, masked market bid and offer data in some jurisdictions become public after a certain length of time passes, e.g., six months.

Furthermore, while FERC has ruled that access to wholesale market transaction data and other confidential market monitoring data is limited to "state commissions who have the regulatory and legal authority to monitor retail electric markets within the state," and expressed concern about "the possibility of many other state agencies being able to receive confidential information," I understand

that the Illinois Attorney General's Office has specific constitutional and legal authority in this area. I recognize that FERC has issued certain orders establishing confidentiality requirements for ISO or RTO release of confidential market data that have implications for state regulatory commission access to that data. To the extent that such data are necessary for a state-level MMU to carry out its duties, other avenues may need to be pursued, such as requests to FERC to find data is not confidential, use of subpoena powers, or other options. *See*, for example, 107 FERC 61,322 at 10.

X. ENERGY EFFICIENCY AND RENEWABLES

Q. WHAT IS BEING DONE IN ILLINOIS WITH REGARD TO RENEWABLE GENERATION AND ENERGY EFFICIENCY PLANNING?

A. The Governor of Illinois has called upon the ICC to set up a task force, the Governor's Sustainable Energy Plan Task Force, to explore the best ways to incorporate renewables and energy efficiency into Illinois's electricity supply and demand-side options.

Q. HAVE THERE BEEN ANY RESULTS WITHIN THE TASK FORCE THUS FAR?

A. There have been proposals by both ComEd and Ameren, and there have been several counter proposals. Given the uncertainty of the outcome of the Task Force, my overall recommendation regarding energy efficiency and long-term

renewables in BUS procurement is that the ICC should retain the authority and option to act on matters relating to the incorporation of renewables and energy efficiency should the Governor's proceedings fail to deliver the right set of benefits to basic utility service customers.

Q. PLEASE EXPLAIN WHY THE COMMISSION SHOULD RETAIN FLEXIBILITY TO ADDRESS THESE ISSUES.

A. Consumers need and value electric price stability. Adding energy efficiency resources and long-term contracts (life of unit or fixed terms of 10-years or more) with fixed and reliable pricing is a practical way to deliver that stability. Such products also reduce the overall proportion of supply procured from more volatile shorter-term clearing price markets. Long-term or life of unit renewable energy purchases enhance price stability because their costs are not affected by fossil fuel price swings or temporary shortages of generation. Energy efficiency resources enhance price stability for the same reason and also because many of the most attractive sources of efficiency savings also reduce on-peak energy use and peak demand.

Q. PLEASE EXPLAIN THE BENEFITS ASSOCIATED WITH LONG-TERM RENEWABLE CONTRACTS AND ENERGY EFFICIENCY.

A. I specifically recommend use of long-term contracts from renewable sources for this purpose. Long-term, *fixed price* contracts for traditional fossil fuel supply are difficult to procure at a reasonable price, because such resources

are associated with high fuel price risk and environmental regulatory risk, such as the risk of future carbon dioxide emission regulation. Renewable resources, on the other hand, are free of such risks. Thus, only renewables can promise consumers reasonable, fixed generation prices for the long-term.

Energy efficiency resources make sense in constructing a default service procurement strategy for different but complementary and compelling reasons. Not only does acquisition of efficiency savings reduce the cost of service and bills paid by BUS consumers, but it does so in a way that simultaneously mitigates price volatility, reduces the potential for wholesale market power abuse, and improves service reliability.

In combination with wise procurement practices to mitigate market power, inclusion of long-term fixed price renewables and energy efficiency in the portfolio for BUS procurement reduces a number of financial risks that would otherwise be borne by BUS customers and over time can reduce cost, as well. Therefore, the Commission, if it approves an auction of any kind, should ensure that those enhancements are included, either as a result of the outcome of its proceedings on the Governor's Sustainable Energy Plan or directly via this proceeding.

Q. ARE THERE OTHER ADVANTAGES TO LONG-TERM RENEWABLE CONTRACTS?

A. Yes. Renewable developers can obtain better financing terms from the financial markets when a project has long-term supply contracts in place. In other

words, long-term contracts are associated with lower capital costs for the construction of new plants. I view this as a win-win; long-term renewable contracts could pair lower capital costs with more stable and lower prices for BUS customers over the long-term.

Q. DO YOU HAVE A RECOMMENDATION FOR THE COMMISSION WITH REGARD TO THE INCORPORATION OF RENEWABLE GENERATION INTO BASIC UTILITY SERVICE PROCUREMENT, SHOULD THE COMMISSION NEED TO ACT ON THIS MATTER?

A. Yes. A portion of the basic utility service system energy requirements, increasing each year, should be procured from renewable resources on a long-term basis.

Q. WOULD THIS APPROACH DELIVER GREATER FINANCIAL PROTECTION AND RATE STABILITY TO BUS CUSTOMERS THAN A RENEWABLE PORTFOLIO STANDARD (RPS) APPROACH?

A. Yes, as mentioned above, an RPS approach can be somewhat effective at getting renewable plants built, but consumers do not realize the full economic benefits of including renewables in the BUS portfolio unless they can also benefit from a long-term fixed price contract for their use. The cost savings and price stability that BUS consumers would obtain from including long-term, fixed price contracts for renewable power would not available to BUS consumer from a system that relies only on compliance with a renewable portfolio standard (RPS)

with tradable credits alone, because the RPS approach generally re-prices the cost of renewable certificates each year, leaving customers to pay high prices for certificates now with no assurance of avoiding fossil fuel risks later. Let me explain this further. With an RPS in place, but without specific long-term contracts for renewables in place, renewables end up being simply another generation option. And their price, like the price of any other generation option, is based on the cost of the unit on the margin. In the case of Illinois, all generation is therefore generally priced by reference to fossil fuel generation via the market clearing prices. In this scenario, even though renewable energy has no fuel component, since the price for all generation is based on the marginal unit cost, customers pay for energy from renewables as if they were paying for energy that runs on fossil fuel.

Alternatively, were there specific long-term renewable contracts in place to service basic utility service customers, the renewable generation component could be priced at the true cost of operating the renewable resource, without regard to fossil fuel prices. This cost should be significantly lower, over-time, than the cost of operating a fossil fuel resource. It would, therefore, make sense for the Commission to link any renewable policy directly to basic utility service policy by procuring a certain percentage of basic utility service supply through long-term renewable contracts.

Q. WHAT IS YOUR RECOMMENDED PROCESS FOR PROCURING LONG-TERM RENEWABLE CONTRACTS?

A. I believe it might be best to use an RFP process for the renewable supply contracts, while continuing to use an auction process for the remainder of the load. The reason for this is that the RFP process offers a bit more flexibility and may allow for longer terms. For example, if in any given year, bids for renewable generation seem unreasonable, offers could simply be rejected and another RFP would be issued the following year.

Q. SHOULD SUCH AN RFP PROCESS BE RUN SIMULTANEOUS TO THE AUCTION PROCESS?

A. No. I propose running the RFP process for the renewables contracts prior to the auction date for the majority of load. This way, the result of the RFP process will be known to all suppliers prior to the auction and should not be a risk factor that negatively affects suppliers' bids.

Q. PLEASE EXPLAIN FURTHER THE BENEFITS ASSOCIATED WITH INCLUDING ENERGY EFFICIENCY IN PORTFOLIO MANAGEMENT.

A. Energy efficiency:

- Reduces the risks associated with fossil fuels and their inherently unstable price and supply characteristics and avoids the costs of unanticipated increases in future fuel prices;
- Avoids the hard to predict costs of complying with potential future environmental regulations, such as CO2 regulation;

- Improves the overall reliability of the electricity system by lowering peak demand and providing more time and flexibility to respond to changing market conditions, while moderating the “boom-and-bust” effect of competitive market forces on generation supply;
- Defers expensive transmission and distribution upgrades and mitigating expensive transmission congestion problems; and
- Promotes local economic development and job creation.

Q. HOW CAN ENERGY EFFICIENCY BE INCORPORATED INTO THE PROCUREMENT OF BASIC UTILITY SERVICE?

A. I believe there are two ways to approach this task. One would be to allow providers of demand-side resources to bid into the auction just as do supply-side options. The other would be to set aside a portion of the BUS load to be procured separately from energy efficiency programs carried out by the utility or an independent third party. Either would be compatible with competitive procurement of the remaining residual load from an auction or alternative method or delivery by the utility.

Q. HOW WOULD THE PROCUREMENT OF ENERGY EFFICIENCY RESOURCES "FIT INTO" THE COMPANY'S PROPOSED COMPETITIVE PROCUREMENT PROCESS?

A. The short answer is that they would not and do not need to directly enter that process. Rather, the most convenient way to procure energy efficiency

resources would likely be to procure them separately from the BUS power procurement. The BUS power procurement "product" is already defined in terms of each winning bidder committing to supply a certain set percentage of the BUS customer load as it happens to occur. To the extent that efficiency resources are procured outside that process, the BUS supply bidders will simply see a different load. Of course, they should be provided with a clear picture of the funding and procurement goals for efficiency resources so that they will be able to estimate the load they are likely to need to serve.

Q. DOES THAT CONCLUDE YOUR TESTIMONY AT THIS TIME?

A. Yes, it does.

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Valuation of Exelon Illinois Nuclear Plant Margins

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Table of Contents

Introduction

With integration of the Commonwealth Edison territory into PJM and with the move to energy markets, there is a potential for substantial increase in generating revenues for Exelon's existing Illinois nuclear plants, an increase which would likely be reflected as increased costs to customers due to the clearing price nature of the PJM markets. This memo attempts to estimate the magnitudes of those increases. To do so we will look both at production costs for these nuclear plants and likely prices in the new markets.

Currently Exelon owns and operates over 10,000 MW of nuclear generation in Illinois as shown in the following table.

Plant Name	Capacity (MW)	Exelon Ownership %	2004 Capacity (MW)[1]
Braidwood	2,363	100%	2,363
Byron	2,336	100%	2,336
Clinton	1,030	100%	1,030
Dresden	1,742	100%	1,742
LaSalle County	2,288	100%	2,288
Quad Cities	1,579	75%	1,121
	Exelon Illinois Nuclear Assets		10,880

Information from 2004 10-K report.

For the most recent four years under Exelon ownership, the capacity factors of these plants have been very high and production costs quite low.

Exelon Illinois Nuclear Fleet Averages

Year	Nuclear Fleet Capacity Factors	Nuclear Fleet Production Cost ($ Per MWh)	Source
2001	94.4%	12.78	2003 10-K, Pg. 102
2002	92.7%	13.00	2003 10-K, Pg. 99
2003	93.4%	12.53	2004 10-K, Pg. 72
2004	93.5%	12.43	2004 10-K, Pg. 72

These operating results contrast starkly with operating results for the years 1998-2000 when these plants were operated by Commonwealth Edison and Illinois Power. During that earlier period, the capacity factors were lower, and the average production cost was about $19/MWh.

[1] These values differ slightly from other data sources such as EIA, but are generally consistent with them.

Energy Prices and Plant Revenues

Although we do not know the actual revenue received for this generation in recent years because that depends on a number of contractual agreements, we can arrive at an approximation of its value based on known market prices. Since this region became part of the PJM market in May of 2004 we have hourly energy price data. For that eight month period of 2004, the average all-hours energy price was $29.72/MWh. We calculate an equivalent price of $30.81/MWh for all twelve months of 2004 based on relative full year prices in PJM West. (See Appendix A.) This is about 2 ½ times the 2004 production cost shown above.

We can make an estimate of pre-PJM gross margin for Exelon's Illinois nuclear fleet based on marginal power costs for the Company's entire system. For 2003 the average marginal generating cost (system lambda) for Commonwealth Edison was $18.95/MWh[2]. This is 51% greater than the nuclear production cost for that year. If 10% is added to this price to account for other factors such as capacity value and ancillary services[3], that gives an overall revenue value of $20.85/MWh as a benchmark. Of course actual revenue data would provide a better comparison.

Turning to the PJM markets that have applied in Illinois since May 2004, the main revenue streams available for Exelon's Illinois nuclear fleet are the energy and capacity markets. Price data is available for both of those markets in 2004, and future price projections are available as well.

For the period from May through December 2004, the all-hours PJM real-time energy clearing price at the Chicago Hub was $29.72/MWh. Using the Western Hub to make a proportional adjustment for the remaining months, we calculate the 2004 equivalent all-hours energy market price to be $30.81/MWh. By making use of electricity forward market data as reported in Megawatt Daily, we calculate energy prices to be $33.57/MWh for 2005 and to increase to $37.21/MWh in 2007. (See Appendix A.)

The PJM State of the Market (SOM) report indicated that the market price for capacity in the ComEd territory in 2004 was in the range of $24.27 to $32.26 per MW-day. Current proposals for a PJM Reliability Pricing Model (RPM) indicate that this is likely to rise gradually over the next number of years to an equilibrium value of $68 per MW-day by 2010[4]. Even if the RPM is not implemented as currently proposed, by joining PJM these facilities will be most likely be eligible for capacity payments in addition to energy revenues.

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[2] From FERC Form-714 data. This the average over the year of the variable cost of the last MWh generated each hour. Exelon's actual gross margin for this period was determined by contractual prices, not the system lambda, so this pre-PJM estimate is only useful as a rough comparison to the PJM market prices that will determine gross margins in the future.

[3] In 2003 in PJM, ancillary and capacity markets provided an additional 7.5% revenue for all resources in addition to that of the energy markets. Thus a 10% value for baseload facilities is generous and is doubly conservative for the present purposes.

[4] From the "Reliability Pricing Model Prototype Simulation" report presented by Mark Gilrain at the PJM RAM Stakeholder Working Group session on January 26, 2005.

Plant Revenues and Gross Margins

To arrive at some measure of gross margin, we need projections of revenue (and cost) impacts. For that purpose, we have constructed the following table which shows what revenues would be pre- and post-market implementation. Based on information we have been able to obtain, it appears that the PJM market prices in 2004 are considerably greater than historic system marginal costs for this region and will increase further in the future.[5]

For 2003 and 2004 we have estimated the revenues for the full year under pre-PJM conditions and what those revenues would be at full PJM market prices.[6] The "2003" and "Pre Mkt 2004" rows in the following table presents the former result. The "PJM Mkt 2004" row in the following table contains an estimate of the revenue and gross margin for Exelon's Illinois nuclear fleet as if the PJM markets had been in place for the full calendar year, instead of coming up in May. The difference is in the order of $1 billion.

The rows for 2005 and on present projected revenues and gross margins for the same fleet using our best assumptions about future PJM energy clearing prices and capacity markets. The gross margin estimates begin at about $1,750 million for 2005 and rise to about $2,611 million in the later years. This reflects likely increases in Chicago area clearing prices as they more closely approach those in other parts of PJM, and as capacity prices rise as loads increase and reserve margins decline. Thus there are substantial gross margin benefits for the current Exelon nuclear facilities, benefits we estimate to be on the order of $2 billion per year of gross margin after production cost.

Some of the numbers behind this calculation are more certain than others. Power plant capacity factors and production costs are based on the averages from the previous four years and may change in the future due to unexpected circumstances. PJM energy and capacity market prices are also based on recent observed values, and future year values are supported by electricity and natural gas futures markets, but could also differ from what we have forecast. We have the least information about current revenues but believe that our calculation based on system marginal costs with an added premium give a reasonable estimate.

[5] System lambdas which are a reasonable estimator of system marginal costs have been about $19/MWh, whereas recent market prices have been about 50% higher.

[6] By "pre-PJM conditions," we mean the revenues that Exelon would have obtained had it been paid its system marginal cost for all production. As pointed out above, this is not the same as its revenue under the bilaterals in existence, but is the best available comparative value available at this point for setting the 2004 PJM market revenues in context.

Exelon Returns

It may be helpful to consider Exelon's stock returns over the past few years. The values reported by Morningstar are: 2002: 14.1%; 2003: 30.2%; 2004: 37.6%. This increase may be due, in part, to rising margins on generating facility operations in Illinois and elsewhere. In 2004, the report ROE was 19.8%. In that year, the reported industry average was 11.8%.

Assumed 2005-2010 Exelon Nuclear Plant Fleet Characteristics

Plant Capacity	10,880	MW
Capacity Factor	93.5%	
Production Cost	12.69	$/MWh

(Based on 2001-2004 averages.)

Estimated Nuclear Plant Revenue Impacts of New PJM Markets

Year	Annual Production Cost (M$)	Average Energy Price	Annual Energy Revenue (M$)	Capacity Value ($/MW-day)	Capacity Revenue (M$)	Total Revenue (M$)	Gross Revenue Margin (M$)
2003	1,115	20.85	1,856	n/a	n/a	1,856	741
Pre Mkt 2004	1,111	20.85	1,863	n/a	n/a	1,863	752
PJM Mkt 2004	1,111	30.81	2,753	28.0	111	2,864	1,753
2005	1,153	35.31	3,146	34.7	138	3,284	2,131
2006	1,176	39.81	3,547	45.6	181	3,729	2,552
2007	1,200	38.20	3,405	40.7	162	3,566	2,367
2008	1,227	38.97	3,482	40.3	160	3,642	2,415
2009	1,248	39.75	3,542	62.0	246	3,788	2,540
2010	1,273	40.54	3,613	68.2	271	3,884	2,611

5/26/2005

The above table gives two estimates of 2004 gross margin from those units, but only single estimates for years before and after that.[7] The 2004 gross margin estimates are labeled “Pre Mkt 2004” and “PJM Mkt 2004,” referring to our two different assumptions about that year’s revenue source for Exelon, which estimates are (1) Exelon receives the ComEd annual average system lambda + 10%, i.e., the marginal energy cost for the ComEd system, and (2) Exelon receives the all-hours average PJM market price, respectively. The 2003 estimate is based on the system lambda assumption and is consistent with the Pre Mkt 2004 assumption, while the 2005-2010 estimates are based

[7] The last column of the table is labeled “Gross Margin (M$)” is an estimate of Exelon’s Gross Revenue from its Illinois nuclear plants minus our estimate of the Operating Expense of those units. It is “gross” because it does not reflect income taxes, depreciation, amortization, or interest expense, corresponding to the accounting concept of Gross Margin.

on estimates of PJM market clearing prices (mainly from published forward contract prices) and are consistent with the PJM Mkt 2004 assumption.

You will see from the table that the Post-2006 Gross Margin estimate is over $2.25 Billion. Compared to our pre-PJM estimates for 2003 and Pre Mkt 2004, both about $0.75 Billion, this is an increase of about $1.50 Billion. After taxes at 27.5%, this translates to an additional $1,088 million annually. As of Dec. 31, 2004 (according to Yahoo Finance) Exelon has $7,598,000,000 in common stock equity. The extra $906.25M translates to an *extra* 14% return on this equity in 2006 compared to 2003. While we believe that the Gross Margin estimates for 2005 and later are reasonable, the *difference* in *return* from earlier years is less certain.

The first reason is that the pre-PJM market 2003 and 2004 estimates of Gross Margin are based on the hypothetical market value of what would Exelon would have seen as the gross margin on operation of its Illinois nuclear fleet *if* the power had been sold into an imaginary power pool in which every generator was paid the clearing price in each hour it generated, but the clearing price was set by the actual variable cost of the most expensive unit dispatched, not by bid prices as in today's ISO energy markets. An additional 10% was added to these marginal generating costs to incorporate other factors such as capacity value. This cost-derived price is 67% above the average Exelon nuclear plant production costs reported for 2004. This represents a reasonable *illustrative* calculation of the value of the nuclear plants, but is not in any way the *actual* revenue in that period. Instead, the actual revenue for those plants was a complicated result of the imposed frozen retail rates, whatever bilateral contract was in place between ComEd and Exelon Generating, and perhaps other factors, none of which we have no values for.

The second reason for caution is that we have not done the analysis to say definitively what expense items might be legitimately subtracted from the Gross Margin estimate to derive an estimate of Net Revenue available for Return on Equity. As mentioned above, candidates might be interest on debt associated with these assets, along with depreciation and amortization on them. There may also have been capital additions. On the other hand, we have some reason to think that these items would be small. The Companies financial reports indicate that for *all* Exelon generating assets these items were only about 5% of total Revenue from those units in 2004. Also, we understand that these units were transferred to Exelon from ComEd at a very small value, and it is possible that Exelon could achieve further improvements in unit operating costs.

A third reason for caution is that some of the increase in Gross Margin was due to improved Operating Costs and average availability, factors that Exelon is generally credited with boosting through its own management efforts. Of course, it is an odd coincidence that Exelon suddenly found itself able to achieve those improvements only after the nuclear units were moved below the line and at a price that may not have recognized the potential for such improvement. Also, it is worth noting that generation is a small portion of Exelon's total profits.

In summary, it appears that Exelon will likely realize substantial additional return in 2006 (and future years) compared to its pre-PJM returns on equity from those plants due to the ability to reprice its Illinois nuclear fleet output at the PJM market clearing price and due to its own improved management. One estimate of that increase is about $1.1 Billion, which would equate to an additional 14% ROE for the corporation, but many factors make it difficult to confirm that estimate.

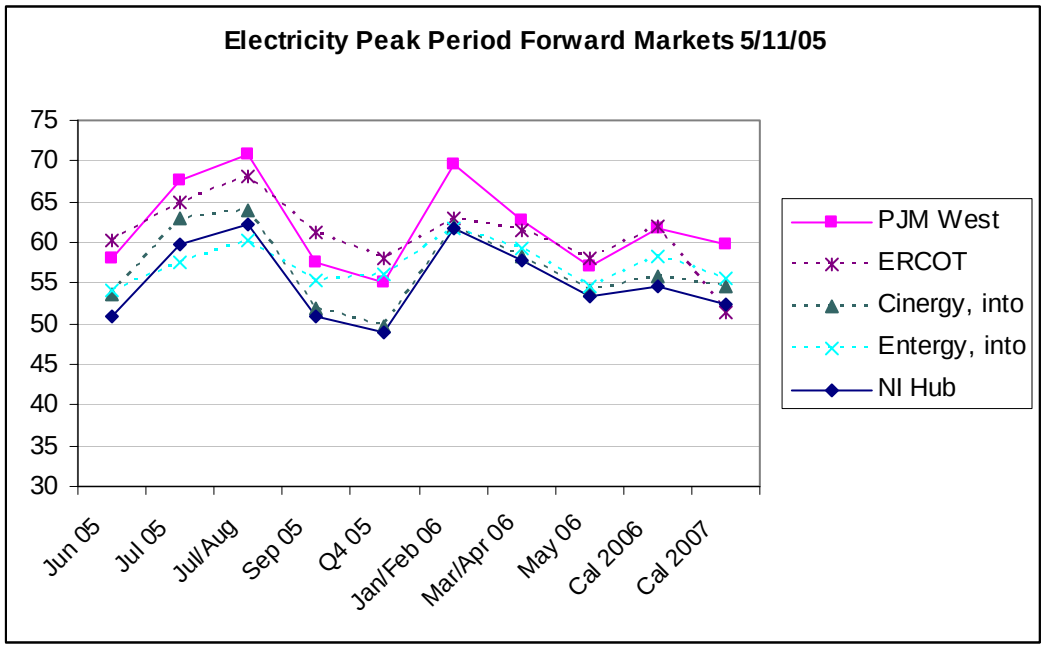
Appendix A – Methodology for Energy Price Forecasts

Our objective is to project the market energy price for generation from the Exelon nuclear power plants in Illinois. The primary basis for this prediction are the prices in the electricity forward markets. The Northern Illinois Hub indicated by "NI Hub" is the market of interest for the Exelon facilities. Although NI Hub prices are the lowest of the locations in this table, the ratio between NI Hub and PJM West prices is higher than observed in the past. In 2004 NI Hub peak prices averaged about 83% if those in PJM West. In the futures data shown below that ratio is a higher 88%. This may indicate a tendency towards greater price convergence in those two markets. Note also the slight decline in prices from 2006 to 2007.

Megawatt Daily Long-term Forward markets, May 11 2005

Period	Jun 05	Jul 05	Jul/Aug	Sep 05	Q4 05	Jan/Feb 06	Mar/Apr 06	May 06	Cal 2006	Cal 2007
NI Hub	51.00	59.85	62.25	51.00	49.00	61.75	57.75	53.45	54.60	52.40
PJM West	58.05	67.60	70.80	57.55	55.05	69.55	62.70	57.10	61.80	59.80
Cinergy, into	53.50	63.00	64.00	51.90	49.75	62.05	58.40	54.00	55.90	54.50
Entergy, into	54.20	57.55	60.25	55.40	56.00	61.65	59.15	54.70	58.30	55.50
ERCOT	60.30	65.00	68.05	61.15	58.00	63.00	61.40	58.10	61.95	51.35

All forward prices are in $/MWh for on-peak delivery.



But these are peak period prices and they need to translated into all-hours prices for the base load nuclear generators. From the existing hourly price data we can derive a relationship between all-hours and peak period prices. From the 2004 data we calculate this factor to be 0.729. This ratio is significantly lower than for the PJM Western Hub and represents the greater availability of less expensive baseload generation.

Year	2004	**CHICAGO HUB**

Average of Price	Period		
Month	Off-Peak	Peak	All Hours
05	21.25	49.56	34.03
06	17.57	40.10	28.58
07	20.04	43.01	30.90
08	16.98	36.68	26.30
09	20.83	35.45	27.98
10	21.27	42.61	30.91
11	18.58	40.06	29.08
12	20.69	39.15	29.82
Grand Total	19.68	40.76	29.72

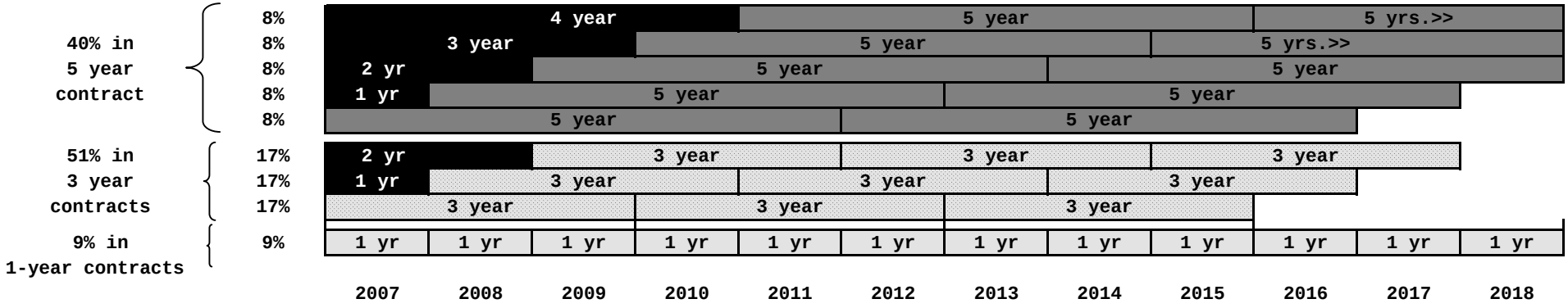
0.729 **AH/Peak**

Applying this adjustment factor to the peak price forwards we arrive at the following forecasts for the all-hours price.

Predicted All Hours Chicago Price

	NI Hub
Cal 2005	35.31
Cal 2006	39.81
Cal 2007	38.20

Alternatiave Product Mix for 1, 3 and 5-year contracts



Annual Auction Product Schedule

% total load procured	100	34	34	34	34	34	34	34	34	34	34	34
Product Mix												
1 year	34	9	9	9	9	9	9	9	9	9	9	9
2 year	25											
3 year	25	17	17	17	17	17	17	17	17	17	17	17
4 year	8											
5 year	8	8	8	8	8	8	8	8	8	8	8	8